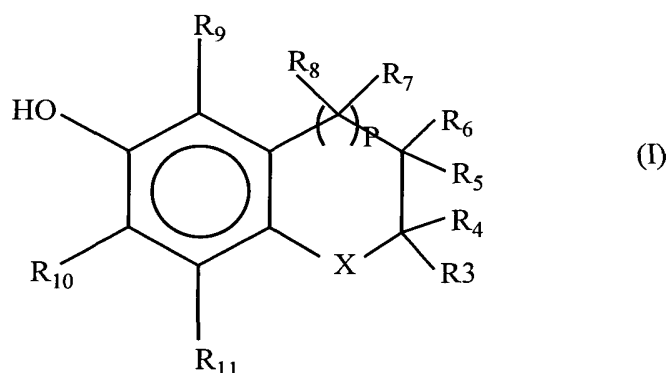


A COMONOMER, AND A POLYMER STABILIZED WITH IT DURING POLYMERIZATION

ABSTRACT

The invention concerns an E-vitamin derivative or a compound analogous with it, having formula (I), where X is an oxygen or sulfur atom, p is an integer 0 or 1, and R₃-R₁₁ are identical or different groups selected from hydrogen, C₁₋₆alkyl or α-alkene having formula (II), where n, m and o are integers 0-4 independent of each other and R₁ and R₂ are identical or different groups selected from hydrogen or C₁₋₆alkyl or C₁₋₆alkene, which may be substituted with an aromatic ring, or R₇ and R₈ are together an oxygen atom and/or R₄ and R₅ and/or R₁₀ and R₁₁ form together with the carbon atoms to which they are bonded a benzene ring, which may be substituted with groups selected from hydrogen, C₁₋₆alkyl or α-alkene.



The invention also concerns the use of a derivative consistent with formula (I) as a stabilizing comonomer, and a stabilized copolymer and a method for the production of a stabilized copolymer.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
25 January 2001 (25.01.2001)

PCT

(10) International Publication Number
WO 01/05781 A1(51) International Patent Classification⁷: C07D 311/72,
307/19, 335/16, C08F 2/44, C08K 5/1545, 5/45, C08F
210/00 // (C08F 210/00, 224:00) (C08F 210/00, 228:06)LUTTIKHEDDE, Hendrik [NL/FI]; Sirkkalankatu 27 A
28, FIN-20700 Turku (FI).

(21) International Application Number: PCT/FI00/00585

(74) Agent: PAPULA OY; P.O. Box 981, (Fredrikinkatu 61 A),
FIN-00101 Helsinki (FI).

(22) International Filing Date: 28 June 2000 (28.06.2000)

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(25) Filing Language: Finnish

(26) Publication Language: English

(30) Priority Data:
991634 21 July 1999 (21.07.1999) FI(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

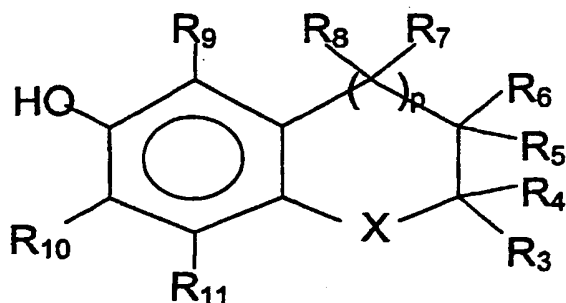
(75) Inventors/Applicants (*for US only*): AUER, Markku
[FI/FI]; VTT Kemiantekniikka, Biologinkuja 7, FIN-02150
Espoo (FI). WILÉN, Carl-Erik [FI/FI]; Åbo Akademi,
Teknisk Polymerkemi, Biskopsgatan, FIN-20500 Åbo
(FI). STRANDÉN, Juha [FI/FI]; Åbo Akademi, Teknisk
Polymerkemi, Biskopsgatan, FIN-20500 Åbo (FI).
ROSLING, Ari [FI/FI]; Åbo Akademi, Teknisk Poly-
merkemi, Biskopsgatan, FIN-20500 Åbo (FI). NÄSMAN,
Jan [FI/FI]; Dragonvägen 58 B A 6, FIN-20700 Åbo (FI).

Published:

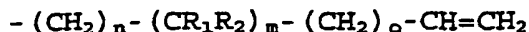
- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A COMONOMER, AND A POLYMER STABILIZED WITH IT DURING POLYMERIZATION



(I)



(II)

(57) Abstract: The invention concerns an E-vitamin derivative or a compound analogous with it, having formula (I), where X is an oxygen or sulfur atom, p is an integer 0 or 1, and R₃ - R₁₁ are identical or different groups selected from hydrogen, C₁₋₆alkyl or α-alkene having formula (II), where n, m and o are integers 0 - 4 independent of each other and R₁ and R₂ are identical or different groups selected from hydrogen or C₁₋₆alkyl or C₁₋₆alkene, which may be substituted with an aromatic ring, or R₇ and R₈ are together an oxygen atom and/or R₄ and R₅ and/or R₁₀ and R₁₁ form together with the carbon atoms to which they are bonded a benzene ring, which may be substituted with groups selected from hydrogen, C₁₋₆alkyl or α-alkene.

The invention also concerns the use of a derivative consistent with formula (I) as a stabilizing comonomer, and a stabilized copolymer and a method for the production of a stabilized copolymer.